alu[ dest, A_op, alu_op, B_op]
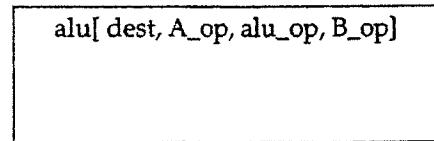
(ALU instruction)

**Fig. 1A**   PRIOR ART

A_Op and B_Op are symbolic registers, the following are possible
register class assignment pairs to A_Op and B_Op:

| A_Op | B_Op |
|---|---|
| General Purpose Register (GPR) (A Bank) | GPR (B Bank) |
| GPR (B Bank) | GPR (A Bank) |
| Transfer In (SRAM (S) or DRAM (D)) | GPR (A Bank or B Bank) |
| GPR (A Bank or B Bank) | Transfer In (S) or (D) |

(Possible register class assignment to A_Op and B_Op)

**Fig. 1B**

PRIOR ART